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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,676

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Dirk Reissenweber

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ROTHWELL, FIGG, ERNST & MANBECK, P.C.

1425 K STREET, N.W.

SUITE 800

WASHINGTON, DC 20005

EXAMINER

ROLLAND, ALEX A

ART UNIT

PAPER NUMBER

1712

NOTIFICATION DATE

DELIVERY MODE

01/21/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary	Application No.	Applicant(s)	
	10/541,676	REISSENWEBER, DIRK	
	Examiner	Art Unit	
	ALEX ROLLAND	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-29 and 31-54 is/are pending in the application.
- 4a) Of the above claim(s) 19-28,37,38 and 41-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29,31-36,39,40 and 47-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/22/10, 10/11/10</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/22/10 has been entered.

Election/Restrictions

2. Claims 19-28, 37-38, 41-46 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 9/22/08.

Claim Objections

3. Claim 32 is objected to because of the following informalities: "in such a way" is insufficient detail to determine if the additional plastic is made detachable by hand by a specific process or something more general. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 29 is rejected under 112, second, in two parts. First, the term "thin" in line 4 is a relative term which renders the claim indefinite. The term "thin" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Second, the phrase "dimensionally stable" is vague and indefinite and it is unclear when the strip is dimensionally stable and how it limits the claim.

6. Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 31 is vague and indefinite because the addition of the word "like" to an otherwise definite extends the scope of the expression so as to render it indefinite.

7. Claim 47 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 47 is vague and indefinite because Claim 29, from

Art Unit: 1712

which claim 47 depends, uses closed language ("consisting of") to specify that the reinforcement layer is contains only plastic and then claim 47 attempts to add additional components into the reinforcement layer.

8. The term "thin" in claim 53 is a relative term which renders the claim indefinite. The term "thin" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

9. Claim 54 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 54 is rejected under 112, second, in 3 parts. First, the term "thin" in line 4 is a relative term which renders the claim indefinite. The term "thin" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Second, the phrase "dimensionally stable" is vague and indefinite and it is unclear when the strip is dimensionally stable and how it limits the claim. Third, the claim is vague and indefinite because there is no step for applying the reinforcement layer onto the metal strip and it is unclear how the reinforcement layer ends up on the metal strip.

Art Unit: 1712

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 29, 33-34, 39-40, 49-51, 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2850999 to Kaplan et al in view of US 5919517 to Levendusky et al.

Kaplan teaches a method for making coated, embossed metal sheets (col. 1, lines 15-19) from rust resistant metals such as aluminum (col. 1, line 22) used for decorative or structural purposes (col. 1, lines 17-19). The embossing operation comprises the sheets being passed through matched hard steel embossing rolls (claimed “embossing unit”) in order to form a multitude of small bosses (col. 4, lines 56-70) prior to other secondary operations (col. 2, lines 55-60). Kaplan does not teach that the secondary

Art Unit: 1712

operation is extrusion coating with plastic or that dimensionally stability is provided.

However, Levendusky teaches a method for coating a metal strip, in particular aluminum, on one or both sides (col. 1, lines 1-21) with thermoplastic resins (which would inherently provide dimensional stability) from extruders and extrusion dies (col. 1, lines 7-16) useful for automobiles, appliance, and construction applications (abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to practice the method of Kaplan and incorporate the method of Levendusky as a secondary operation because Levendusky states that coating metal with plastic improves corrosion resistance, formability, and appearance (col. 19-22).

Claim 33:

A coating is applied onto the metal sheet as an initial treatment, followed by embossing of the coated sheet, before other secondary operations (col. 2, lines 55-60). The coating can be selected from varnishes (col. 3, line 73) which inherently provide a protective quality and adheres to the aluminum.

Claims 49-50:

These properties are assumed to be inherent to the references cited as identical materials deposited in the same fashion are expected to have the same properties.

Claim 51:

Art Unit: 1712

The fiber-reinforced layer has a thickness between 15 and 65 mils (.381 to 1.651 mm) (Goldsworthy, col. 26, lines 21-29). In the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

13. Claims 31, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2850999 to Kaplan et al and US 5919517 to Levendusky et al in further view of US 4402778 to Goldsworthy in further view of US 4253597 to Waffner et al.

Kaplan, Levendusky, and Goldsworthy are discussed above but fail to teach passing the aluminum through a loop-like arrangement after embossing and before extrusion coating. However, Waffner teaches that it has long been known that the feeding of web material, such as fragile sheeting, from an input to an output is best accomplished by permitting a loose loop to form in the web between the inlet and the outlet (col. 1, lines 5-11). With such a loop, the web will not be damaged if there are changes in the relative infeed and outfeed speeds of the web (col. 1, lines 10-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to practice the method of Kaplan, Levendusky, and Goldsworthy and include a loose loop between embossing and extrusion coating because Waffner states that it is desirable to do so for a fragile web to prevent damage.

Art Unit: 1712

14. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 2850999 to Kaplan et al in view of US 5919517 to Levendusky et al in further view of US 4402778 to Goldsworthy in further view of US 6555615 to Van Rheene.

Kaplan, Levendusky, and Goldsworthy are discussed above but fail to teach an additional removable plastic layer. However, Van Rheene teaches a removable coating that protects a substrate from foreign objects, weathering, and pollutants (col. 3-4, lines 66-2). The substrate can be selected from various metals or coated metals (col. 1, lines 16-18) and is useful for various applications such as the manufacture of vehicles and building materials (col. 1, lines 36-40). Regarding the ease of removal, see Table VI (col. 17, lines 9-38) where various polymers are tested for ease of removal from aluminum. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to practice the method of Kaplan, Levendusky, and Goldsworthy and incorporate the removable, protective film of Van Rheene because Van Rheene states that a protective film of this type protects the substrate from damage.

15. Claims 36, 52-53 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 2850999 to Kaplan et al in view of US 5919517 to Levendusky et al in further view of US 4402778 to Goldsworthy in further view of US 4253597 to Waffner et al in further view of US 1856928 to Pannier.

Kaplan, Levendusky, Goldsworthy and Waffner are discussed above but fail to teach the upper layer stopping during the embossing process. However, Pannier teaches a

Art Unit: 1712

stamping method for embossing a metal sheet (col. 1, lines 1-4) wherein a pair of embossing dies (claimed "upper stamp" and "lower stamp") are used to emboss metal sheets (col. 1, lines 17-28) by bringing the sheet between the dies, operating upon the sheet (claimed "stopped during embossing"), then shifting the sheet (col. 3, lines 59-65). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the embossed rollers of Kaplan, Levendusky, Goldsworthy and Waffner with the embossing dies of Pannier because Pannier states that such embossing dies are suitable for embossing metal.

16. Claim 47-48 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 2850999 to Kaplan et al in view of US 5919517 to Levendusky et al in further view of US 4402778 to Goldsworthy.

Kaplan and Levendusky are discussed above but fail to teach adding fibers to the plastic layer. However, Goldsworthy teaches a method for continuous production of a reinforced laminate (abstract) wherein metallic sheets are laminated with fiber-containing reinforced plastic useful in construction applications (col. 1, lines 58-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the plastic layer of Kaplan and Levendusky by adding fibers because Goldsworthy states that fiber-containing plastic results in a laminate having lower cost than other, similar construction materials (col. 1, lines 58-64).

Claim 48:

Art Unit: 1712

The fibers are glass fibers (Goldsworthy, col. 9, lines 15-36).

Response to Arguments

17. Applicant's arguments filed 11/22/10 have been fully considered but they are not persuasive.

18. Applicant argues that Kaplan does not disclose a thin metal strip that is embossed and then coated. The Examiner agrees and refers to Para. 5 above wherein Kaplan is cited as coating the metal strip with the claimed protective varnish and then embossing and Levendusky is cited for coating the embossed metal strip as one of Kaplan's "secondary operations".

19. Applicant argues that Levendusky discloses coating a metal strip that is not embossed. Levendusky does not state this at the citation provided or anywhere in the reference.

20. Applicant argues that Levendusky states that the coating should be smooth and glossy with a minimum of irregularities. At the citation provided, Levendusky states that it is the surface of the coating that should have these features, not the metal strip itself or the underside of the coating. As such, Levendusky does not teach away from the invention of Kaplan.

Conclusion

21. No Claims are allowed. All pending claims are rejected for the reasons set forth above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX ROLLAND whose telephone number is (571)270-5355. The examiner can normally be reached on Monday through Friday, 9:00 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cleveland can be reached on (571)272-1418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Frederick J. Parker/
Primary Examiner, Art Unit 1715

/ALEX ROLLAND/
Examiner, Art Unit 1792